ESCO

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March 24, 1992

Mr. Dick Florey
E.G.&G. Rocky Flats, Bldg. 051
P.O. Box 464
Golden, CO 80402-0464

Re: Inventory of Spiranthes diluvialis habitats at gauging station installation or upgrade sites.

Dear Mr. Florey:

This letter reports the results of a survey of potential Spiranthes diluvialis habitat conducted on March 23, 1992 on certain sites of proposed disturbance associated with gauging station installation or upgrades. I was accompanied to these sites by Scott McGlochlin, Kay Ryan, and Wes Goodwin of E.G.&G.

GS01 - At this gauging station installation site, the channel itself is full of sandbar willow (Salix exigua) and is unsuitable Spiranthes diluvialis habitat. The first stream terrace is very well-drained and occupied by plains pricklypear cactus (Opuntia polyacantha), fringed sagewort (Artemisia frigida), blue grama grass (Bouteloua gracilis), prickly rose (Rosa acicularis), and Louisiana sagewort (Artemisia ludoviciana); this terrace is clearly too dry for the occurrence of the plant. The monitoring building is to be built on the second terrace which is occupied by plains pricklypear, blue grama, Louisiana sagewort, Spanish bayonet (Yucca glauca), alyssum (Alyssum minus), white prairieaster (Aster adscendens), and big bluestem (Andropogon gerardii); this area is also too dry for the occurrence of Spiranthes diluvialis.

GS02 - At this gauging station installation site, along the IMOWER ditch, the terrace abutting the stream channel on the south is occupied by western wheatgrass (Agropyron smithii), while the north terrace is occupied by western wheatgrass and big bluestem. Neither of these sites were moist enough to support Spiranthes diluvialis.

GS04 - At this gauging station installation site, the floodplain terrace immediately abutting the stream channel, although in position to be appropriately moist, is in this case, unusually dry as reflected in the presence of plains pricklypear cactus, needle-and-thread grass (Stipa comata), and Russian knapweed (Acroptilon repens). Also present are smooth brome grass (Bromus inermis ssp. inermis) and indigobush leadplant (Amorpha fruticosa ssp. angustifolia). This site is too dry for the likely occurrence of the plant.

GS05 - This gauging station installation site was considered to have potential Spiranthes diluvialis habitat on both the north and south sides of Woman Creek on moist alluvial terrace deposits.

GS06 - At this gauging station installation site, habitat changed from heavy cattail (Typha latifolia) cover in the channel to heavy Baltic rush (Juncus arcticus ssp. ater) and silver sedge (Carex praegracilis) cover, to snowberry (Symphoricarpos occidentalis) and wild licorice (Glycyrrhiza lepidota). On the south bank, the outer band

had heavy infestation of Canada thistle (Cirsium arvense). All these habitats, while moist, are occupied by tall vegetation with which Spiranthes diluvialis cannot compete. The monitoring building site was dry beyond the tolerance of the plant, with plains prickly pear cactus, Louisiana sagewort, western yarrow (Achillea lanulosa), sunsedge (Carex heliophila), low larkspur (Delphinium nutallianum), and big bluestem.

GS07 - At this gauging station installation site, the location for the flume itself has no potential for Spiranthes diluvialis, since it is in a deeply incised channel with no vegetation, but the monitoring building site, along with the connection corridor is potential habitat and should be checked; it is on a subirrigated alluvial terrace of appropriate moderate to high moisture, that has some Canada thistle, but is probably open enough to support the plant.

GS08 - At this gauging station upgrade site, the building site and connection path lie on a manmade fill slope vegetated by intermediate wheatgrass (Agropyron intermedium); this site is not moist enough to support the plant, and the heavy tall grass cover would provide excessive shading.

GS11 - At this gauging station upgrade site, the building site and connection path are located in an existing road turn-around area that does not comprise Spiranthes diluvialis habitat.

GS12 - At this gauging station upgrade site, the building site and connection path lie on a manmade roadfill slope vegetated by smooth bromegrass; this site is not moist enough to support the plant, and the heavy tall grass cover would provide excessive shading.

GS13 - At this gauging station upgrade site, the building site and connection path lie on a north-facing slope that is well-drained, covered by western wheatgrass, white prairieaster, and ragweed (Ambrosia psilostachya); Despite the north-facing aspect, this site is apparently too dry to support Spiranthes diluvialis.

SWL26 - At this gauging station upgrade site, the building site and connection path lie on a dry east-northeast facing fill slope, not comprising suitable habitat for the plant.

SUMMARY

Sites GS05 and GS07 include potential habitat for Spiranthes diluvialis and should be checked during July and August to verify the presence or absence of the plant. Sites GS01, GS02, GS04, GS06, GS11, GS12, and GS13 do not include suitable habitat for the reasons stated above.

Should you have any questions regarding this information, please call me.

Sincerely,

David L. Buckner

David L. Buckner, Ph.D.
Plant Ecologist

cc: Jean Tate, EBASCO